

1986

# Litigation services; Management advisory services practice aids. Technical consulting practice aid, 07

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MANAGEMENT  
ADVISORY SERVICES  
PRACTICE AIDS

TECHNICAL CONSULTING PRACTICE AID

**7**

# ***Litigation Services***

Michael S. Wagner, CPA, JD  
Peter B. Frank, CPA

## NOTICE TO READERS

MAS practice aids are designed as educational and reference material for the members of the Institute and others interested in the subject. They do not establish standards or preferred practices. The standards for MAS practice are set forth in the Statements on Standards for Management Advisory Services (SSMASs) issued by the AICPA. However, since the services described in this series of practice aids are management advisory services, the standards in the SSMASSs should be applied to them, as appropriate.

The MAS Division expresses its appreciation to the authors of this practice aid, Michael S. Wagner, CPA, JD, and Peter B. Frank, CPA. They are partners in the Los Angeles office of Price Waterhouse. Mr. Wagner specializes in litigation services as well as management consulting services. Mr. Frank is Price Waterhouse's national director of litigation services and specializes in management consulting related to strategic planning and litigation services.

During the preparation of this document, various members of the 1985-1986 AICPA MAS Technical and Industry Consulting Practices Subcommittee, functioning in an advisory capacity, provided information, materials, and comments to the authors and the staff. The members of that subcommittee are listed below.

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# ***Litigation Services***

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# Preface

This MAS practice aid is one in a series intended to assist practitioners in applying their knowledge of organizational functions and technical disciplines in the course of providing management advisory services. The Summers and Knight study, *Management Advisory Services by CPAs*, published by the AICPA in 1976, has subdivided such knowledge into seven areas: executive planning, implementation, and control; finance and accounting; electronic data processing; operations (manufacturing and clerical); human resources; marketing; and management science. Although these practice aids will often deal with aspects of those seven areas in the context of an MAS engagement, they are also intended to be useful to practitioners who provide advice on the same subjects in the form of an MAS consultation. MAS engagements and consultations are defined in Statement on Standards for Management Advisory Services 1, issued by the AICPA.

This series of MAS practice aids should be particularly helpful to practitioners who use the technical expertise of others while remaining responsible for the work performed. For members employed in industry and government, MAS technical consulting practice aids contain information that may be useful in providing internal advice and assistance to management.

MAS technical consulting practice aids do not purport to include everything a practitioner needs to know or do to undertake a specific type of service. Furthermore, engagement circumstances differ, and, therefore, the practitioner's professional judgment may cause him to conclude that an approach described in a particular practice aid is not appropriate.

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# Scope of This Practice Aid

Civil litigation involves disputes between business entities, governments, or individuals. This practice aid defines and explains the CPA's functions in the civil litigation process. The CPA analyzes what actually happened, develops assumptions about what would have happened *but for* certain circumstances, and explains these facts and assumptions in the form of an opinion. The CPA exercises these functions in either of two roles. As a consultant he explains his findings to the attorney who hired him. As an expert witness he explains them to the trier of fact (for example, a judge, jury, arbitrator, or mediator).

Frequently, one or more parties to a litigation seek the assistance of a CPA on the issue of damages, which can be either out-of-pocket losses or a claim of lost profits. The plaintiff may enlist a CPA to compute damages, or the defendant may ask a CPA to study and possibly rebut the plaintiff's computation of damages. This practice aid focuses on such engagements.

CPAs work predominantly in civil litigation, and therefore this guide focuses on such engagements. However, criminal cases may also require CPA services (for example, arson, bid rigging, and price-fixing). Many of the comments in this guide are equally applicable to the criminal area of the law.

## Definitions

*Consultant.* The CPA is hired strictly to advise the attorney about the facts and issues of the case and will not be called to testify about his work or opinion. This status generally provides a *work-product privilege*, which protects all work performed for the attorney; that is, the efforts, opinions, advice, work product, and involvement of the CPA will not be disclosed to the opposing side.

*Expert opinion.* Testimony by a person qualified to speak authoritatively because of special training, skill, study, experience, observation, practice, or familiarity with the subject matter. It is expert knowledge not possessed by laymen or inexperienced persons. The scope and nature of expert opinion testimony are defined within the applicable state or federal rules of evidence.

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**Note:** A more extensive glossary can be found at the back of this practice aid.

Expert opinion testimony on accounting issues is given by an individual and not by an accounting firm. An expert opinion is not an auditor's opinion as the term is used when referring to a set of financial statements. On rare occasions, though, an expert opinion may relate to an examination of a financial presentation or to a judgment on whether financial statements are presented in accordance with GAAP.

*Expert witness.* An expert witness is retained to render an expert opinion at trial. The CPA is identified to the opposing party as an expert witness by the attorney who retained him. When retained as an expert witness, the CPA needs to conduct the engagement from the outset with the assumption that all work performed is discoverable by the opposing party.

*Forensic accounting.* The application of accounting principles, theories, and discipline to facts or hypotheses at issue in a legal dispute. It includes every branch of accounting knowledge.

*Litigation services.* As used in this practice aid, any professional assistance nonlawyers provide to lawyers in the litigation process. CPAs' assistance can include quantification of damages, analysis of business facts, and expert testimony. (More complete groupings are listed in "Types of Engagements," "Engagement Objectives and Client Benefits," and "Engagement Approach," which follow. Management support of the litigation process, such as document management, computer selection and setup assistance, and case planning and administration, may be included in the range of services offered by CPAs, but it is not discussed in detail in this practice aid.)

## Types of Engagements

Litigation services engagements in which a CPA provides advice and assistance can be categorized as follows:

### Damages

- Lost profits
- Lost value
- Extra cost
- Lost cash flow
- Lost revenue
- Mitigation

### Antitrust Analyses

- Price-fixing
- Market share, market definition
- Pricing below cost
- Dumping and other price discrimination
- Anticompetition actions
- Monopolization

### Accounting

- Bankruptcy
- Family law
- Tracing
- Contract cost and claims
- Regulated industries
- Frauds, civil and criminal
- Historical analyses

### Analyses

- Tax bases
- Cost allocations
- Tax treatment of specific transactions

### Valuation

- Businesses and professional practices
- Pensions
- Intangibles
- Property

### General Consulting

- Statistical analyses
- Actuarial analyses
- Projections
- Industrial engineering
- Computer consulting
- Market analyses

This practice aid describes the following typical assignments:

1. Developing damage studies to—
  - prove the cause of damages
  - prove the amount of damages

2. Determining the facts to support liability arguments
3. Developing automated document-retrieval systems

The aid focuses on developing damage studies.

## **Developing Damage Studies**

### **Proving the Cause of Damages**

In order to be awarded damages in litigation, the plaintiff must prove two things: (1) the defendant violated a legal right of the plaintiff and (2) this violation harmed the plaintiff. Proving the cause of damages deals with this second step. Because CPAs are experts at interpreting facts in business litigation, they can offer insight and expert opinions to help determine whether the legal violation caused the plaintiff's damages.

Causation can be obvious. For example, when a wage earner is physically injured and is not able to work for a period of time, it is relatively easy to prove that the loss of those wages was caused by the physical injury. At the other end of the spectrum, however, a complicated antitrust case may have legal violations that seem several steps removed from the plaintiff's injury, and other factors may also appear to have contributed to the plaintiff's injury. For example, a plaintiff may allege that a defendant engaged in predatory acts, such as below-cost pricing, which might have arguably bankrupted a plaintiff. However, other factors may have been present that would also explain the plaintiff's failure—for example, negative economic trends, negative industry trends, high interest rates, mismanagement by the plaintiff, and normal competitive responses.

The CPA can assist in securities litigation by performing statistical analyses of a security's price movements and returns. If the CPA determines that a change in the defendant company's stock price was statistically significant when some information was disclosed or some misstatement was corrected, the relationship tends to prove the cause of damages. If the CPA cannot establish a relationship between the stock's price movement and a disclosure or correction, the cause of damages may not be proven.

Only after the cause of damages has been established does the third issue, the amount of damages, become relevant.

### **Proving the Amount of Damages**

Engagements are usually for a client currently in litigation or for an attorney seeking either a consultant or an expert witness. The most common engagements are (1) to prepare or review a damage study for the plaintiff and (2) to rebut the damage study for the defendant. Frequently, the defendant also requires an independent computation of damages as

alternative evidence for the trier of fact to consider. This type of engagement is referred to as proving the amount of damages.

The plaintiff's loss can take many forms, depending on the facts of each case. Some of the more common types of damages claimed in civil litigations are as follows:

- Increased costs (for example, interest, general and administrative costs, product development costs, and extra expenses)
- Loss of business goodwill
- Lost earnings capacity
- Lost profits (past, prospective, or both)
- Lost revenues
- Personal injury
- Property damage
- Lost sales value of a company

The Appendix presents a sample engagement involving a plaintiff's loss of future profits when a state government prematurely terminates a contract with the plaintiff, a vending operator, to operate vending machines at rest stops on highways within the state.

### **Determining Facts to Support Liability Arguments**

The CPA as an auditor and a consultant to business entities is uniquely qualified to assist in determining certain economic, statistical, or commercial facts necessary to establish liability. The attorney uses these facts to develop the legal arguments and theories of the case. However, no matter how ingenious or appealing the legal arguments are in a case, they are no stronger than the facts underlying the attorney's arguments.

Collecting facts on the relevant industry and market shares is among the types of activities often undertaken by CPAs. Organizing and analyzing bidding patterns, for example, may assist in proving a bid-rigging charge.

In securities litigation, the issues of whether financial statements were prepared in accordance with generally accepted accounting principles (GAAP) or whether an auditor followed generally accepted auditing standards (GAAS) are often crucial in establishing the liability of the defendant company, officers, directors, or independent accountants. Obviously, few except CPAs/auditors have the expertise to evaluate and opine on the application of GAAP and GAAS.

Other facts that CPAs often explain at trial include common industry practices and the way certain transactions pertinent to the case were structured.

## Developing Automated Document-Retrieval Systems

CPAs are frequently experts on management information systems and computer systems. Such CPAs are uniquely qualified to help attorneys in collecting, organizing, and summarizing the large volume of documents often used in a case.

Every litigation situation requires a document-retrieval system, whether manual or automated. CPAs need to offer assistance in this area as an integral part of litigation services. Attorneys frequently seek CPAs' advice when deciding whether to use an automated or manual document-retrieval system. This is especially true with an attorney's first case involving numerous documents, when he lacks the experience to properly evaluate the alternatives. Even attorneys who have had previous experience with automated retrieval systems need help with unique types of business records. CPAs can assist in planning and setting up such system-and-processing groups; in formatting the input coding sheets; in explaining to the attorneys and the document coders what information is relevant and needs to be extracted from the documents; and in establishing appropriate procedures and controls.

# Engagement Acceptance Considerations

## The CPA's Role

Whether the CPA is asked to testify as an expert witness at trial or act as a consultant to the attorney may impact the CPA's decision to become involved in litigation. As an expert witness the CPA presents opinions publicly in an objective fashion, but as a consultant the CPA advises and assists the attorney or client in private. In the private role, the CPA provides assistance more like that of an advocate to help the attorney identify case strengths and weaknesses or to develop strategy against the opposition.

When acting as an expert witness, a CPA needs to avoid lawyers or their clients who expect him to become the client's advocate. Client advocacy is a proper role for a lawyer, but not for a CPA who will provide expert testimony. The CPA's role is to form an independent professional opinion based on either facts or hypotheses. As an expert witness the CPA needs to maintain objectivity at all times in a litigation services assignment. The CPA, of course, also needs to present and defend his position with strength and conviction.

If an attorney or client restricts the CPA's investigation by limiting access to the facts or by trying to influence the CPA's judgment, this can endanger the CPA's reputation and the ultimate success of the case. The CPA needs a fair amount of freedom in determining the scope of the engagement after the duties have been established.

The CPA should be wary of the attorney or client who seeks expert testimony but is unwilling to provide the CPA with the necessary time and resources to properly prepare a professional opinion. If the attorney or client is unwilling to disclose all relevant facts about the litigation or to provide sufficient preparatory time, it would be appropriate for the CPA to decline or withdraw from the engagement.

In some situations, however, an attorney's limited presentation of the facts to a CPA could be considered an appropriate engagement. This would apply if the attorney wants the CPA's contribution limited to testimony addressing a hypothetical construct presented at trial and the trier of fact is aware of the limitations.

Few engagements are as demanding for a CPA as that of an expert witness at trial. The CPA's every word, either in a deposition or on the stand at trial, will be scrutinized by intelligent and experienced attorneys and opposing experts. They will likely catch any weakness or inconsistency in the CPA's testimony and turn it back on him. Therefore, the CPA reviews testimony he has given in previous engagements to be sure it is consistent with the testimony expected in the prospective engagement. If the CPA has had no previous testimonial experience, he considers whether his background is appropriate for the prospective engagement and whether this litigation is a proper one for his first experience.

The CPA considers whether the position he is to testify on is consistent or inconsistent with the position of his clients. Nothing could be more embarrassing for the CPA than to give testimony that contradicts positions taken by his clients, especially if he has concurred in them, and then to have the inconsistency disclosed by the opposition.

## **The Client-Practitioner Relationship**

The CPA determines whether his client is the attorney or the attorney's client. If the CPA's client is the attorney, then the CPA's work is usually protected from discovery by the opposing side as long as the CPA does not give expert testimony at trial. This protection from discovery is a result of the attorney's work-product privilege. However, if the CPA's client is the attorney's client, then the attorney's work-product privilege may not protect the CPA's work from discovery by the opposing side.

If the attorney's client has a preexisting audit relationship with the CPA, the CPA and the attorney consider what effects this will have. Of course, no ethical restriction prevents the CPA from performing audits

and litigation services for the same client. But in providing litigation services, the CPA should satisfy himself that any information he develops will not require him to comment on his opinion about the financial statements. While this appears unlikely, the CPA needs to consider possible negative consequences. Some examples follow.

#### For the Attorney

- *Appearances.* The preexisting audit relationship may raise questions about appearances of objectivity.

#### For the CPA

- *Successful litigation against a client.* Successful litigation proceedings can have a material impact on a business, and if the CPA is identified with attorneys and other experts in a losing case, the audit relationship may suffer.
- *Perceived bias.* The CPA can be cross-examined on the stand about the audit relationship, including how large the audit fees are, in an attempt to demonstrate bias because of the continuing business relationship between the CPA and the client.
- *Subject-to qualification.* The CPA may determine that the litigation requires him to add a *subject-to* qualification to his audit opinion. This may provide an embarrassing and confusing subject that the CPA can be cross-examined on at trial.

#### Conflict of Interest

The CPA inquires about any possible conflict of interest before accepting a litigation services engagement. This is the most important engagement acceptance consideration. All parties to the litigation would be checked to determine if they are existing or past clients of the CPA or his firm. Even when no direct conflict of interest exists, the CPA usually does not accept an engagement that is directly contrary to the interests of another existing client. In civil litigation that frequently names many persons and entities as defendants, an attorney for one of the defendants may approach the CPA for assistance. Although no conflict of interest may exist with the plaintiff, one of the other defendants may be a client. This can become a problem if the plaintiff proves damages, because then the defendants will no longer be united in trying to defeat the plaintiff. Instead, they will begin complaining about each other in an attempt to escape the ultimate payment of damages. At this point, the CPA could find himself in the embarrassing position of opposing a current client.

Determining whether it is a conflict of interest to accept a litigation services engagement against a former client can best be resolved on a case-by-case basis. Factors to consider include the length of time *since*



the party was a client, the length of time that the party was a client, the confidential information the CPA possesses that may become an issue in the litigation, and the issues of the case.

The CPA considers if what he will be asked to do in a litigation services engagement is inconsistent with what he currently does for other clients. (That is, will it be a practice in accordance with GAAP?) For example, in a typical securities fraud case, the plaintiff wants to prove that the practices of the company's CPA contributed to nondisclosure or fraudulent disclosure in the financial statements. The CPA who is deciding whether to work for the plaintiff needs to consider if the practices of the defendant's CPA represent conduct that the CPA himself engages in.

To the lawyer retaining him, the CPA discloses all current and former relationships with all parties to the litigation, even when he has concluded there is no conflict of interest. The lawyer and his client have the right to make their own determination about whether a conflict exists.

## **Timetables**

The CPA considers the required timetable for delivery of services in a litigation services engagement. Frequently, attorneys wait until the last few days before trial to retain experts. Once the trial starts, it is important that work be completed on schedule. If the CPA needs information or guidance from the attorney to continue the work, it often means he waits for the end of a trial day when the attorney returns from court.

The litigation process is usually lengthy, and its progress is determined more by the court calendar and occasionally the opposing side rather than by the attorney or client who hired the CPA. In accepting a litigation services engagement, therefore, the CPA needs to be prepared to provide services continuously or sporadically. The CPA considers how these inherent scheduling uncertainties will impact on services to other clients before accepting the assignment.

## **Fees**

The CPA inquires whether the attorney or the client will ultimately provide the funds to pay him. The CPA then determines whether this party will be able to make payment if the litigation is unsuccessful. If not, the engagement might be viewed as one involving a contingency fee. While an attorney will frequently have a contingency fee arrangement, which is entirely proper, CPAs are prohibited from working for a contingency fee under rule 402 of the AICPA Professional Rules of Conduct. The CPA informs the attorney about this prohibition to establish that he will be compensated regardless of the outcome of the litigation.

If the CPA bills his time to an attorney who is working for a contingency fee, the CPA's bill would be sent to the attorney's client as part of ex-

penses the attorney incurs on behalf of the client. Expenses are usually reimbursable, notwithstanding the contingency arrangement. Most canons of the bar also make it improper for an expert witness to be part of a contingency fee agreement.

If cash flow is a problem for the CPA, he may need to inquire about the billing-and-payment schedule. If an insurance company is funding the defense of a lawsuit, payment can be extremely slow; appropriate contract terms (such as late charges for slow payments), agreed on in advance, need to be considered. Since litigation engagements are typically one-time services for a particular litigant, the CPA may often find collection of a final bill difficult, especially if the litigation is unsuccessful. The CPA may consider obtaining retainers to be applied against the final bill.

## **Staffing**

Litigation services engagements may require top-heavy staffing because attorneys usually do not want to work with junior staff. They demand significant involvement by the person who will be the expert witness. Therefore, the CPA needs to closely supervise his staff and be ready to testify that all work, exhibits, analyses, and the like were prepared under his direct supervision and control. If the CPA cannot devote substantial time to the litigation services engagement because of involvement in other engagements, he would do best to decline the engagement.

## **Merit**

The CPA tries to determine the merits of a case before accepting a litigation services engagement. This is extremely difficult to do in most instances, but if the CPA determines that the potential client's case does not have merit or that the defense he is asked to present is groundless, he would do best to decline the engagement.

## **Inconsistent Opinions**

At the outset of litigation, a CPA usually cannot know what his ultimate opinions are going to be. It is only after a careful evaluation and analysis of the facts that an opinion can be formed. This opinion could be harmful to the client. The CPA considers how the client will view a withdrawal from the engagement if the conclusions drawn by the CPA are inconsistent with the theories pursued by the client in the case. If the CPA believes he will not be able to withdraw from an engagement and be paid for the services rendered to date, he would carefully consider whether to decline the engagement.

# Engagement Objectives and Client Benefits

Engagement objectives in litigation services depend on the role the CPA will play. If the CPA is retained as an expert witness, the objectives are to form an expert opinion and to testify about it in a deposition or at trial. If the CPA is retained as a consultant to the attorney, the objectives are to advise the attorney about the facts and issues of the case and possibly to help the attorney develop case strategy.

In either role, the CPA's objectives could also include (1) assisting in the cross-examination of the opposing party's fact and expert witnesses, (2) assisting in proving or disproving liability, or (3) assisting in proving or disproving (a) the cause of damages and (b) the amount of damages.

## Engagement Scope

The scope of litigation services engagements is generally more difficult to establish at the outset than the scope of other types of consulting engagements. Following are the more significant reasons for this.

### Changeable Environment

Litigation is a fluid and ever-changing environment. When the CPA is first retained, the attorney may have a fairly well-conceived idea about the CPA's role in the case. However, over time the focus of the litigation may shift due to discovery of additional facts, the winning or losing of legal motions prior to trial, or merely a better understanding of the real facts at issue. Any of these can alter the CPA's role and method.

### Lack of Familiarity With Data

When a CPA is first retained in a litigation services engagement, neither he nor the attorney generally knows what documents and data are available to perform the analysis. If discovery is still open, the CPA can assist in identifying types of documents and data necessary for his analysis. However, the amount of effort required to obtain the documents and data is unknown, as is the specific information that will eventually be produced.

Since the approach in a litigation engagement is generally inductive, the CPA's methodology and analyses depend on the facts uncovered

and the scenarios developed. As these are usually unknown at the outset, the work steps beyond initial fact-finding cannot be determined immediately. Thus, a comprehensive and detailed work plan is nearly impossible to prepare at the beginning of a case.

Not knowing what data is available and precisely what analyses to perform makes developing a work plan difficult and potentially harmful to the client's interest. If the CPA is designated as an expert witness, the opposing party can discover his work plan. Furthermore, the steps in the work plan could prove impossible to complete, or the CPA may choose not to complete them because they do not make sense based on (1) subsequent data production, (2) lack of data production, or (3) facts later identified. A skillful lawyer for the other party might make the CPA expert look foolish, or perhaps even discredit him, by highlighting the uncompleted work steps and by obfuscating the rationales for a revised work plan.

### **The Attorney's Role**

The attorney may expand the scope of the CPA's engagement after becoming familiar with the special skills and insights the CPA brings to the litigation effort. After the CPA establishes his expertise to the attorney, the attorney uses the CPA to test his legal arguments and theories and to help develop case strategy.

### **The CPA's Role**

#### **Acting as Expert Witness or Consultant**

The CPA's role as either an expert witness or a consultant affects the engagement's scope. If the CPA's role shifts during the engagement, the scope changes too.

A CPA retained as an expert witness is often separated from other experts and from theories of the case that are irrelevant to his eventual testimony. This separation is to ensure that the CPA cannot be used to effectively contradict or refute other theories and experts retained by the client or his attorney. If the CPA expert witness has not exchanged information about testimony with any other witnesses, then the attorney may be able to block any inquiry into other witnesses' testimony during the CPA's testimony.

A CPA hired as a consultant to the attorney can play quite a broad role. He can explore many different theories and approaches to proving a point because the attorney's work-product privilege protects any potentially harmful disclosures from discovery by the other side. Although this is not an absolute privilege, a judge rarely overturns it.

The attorney uses the CPA consultant in the same way he uses paralegals and other consulting attorneys: The CPA will sit in on strategy sessions and help develop the attorney's approach to proving the case.

### **Preparing Studies or Rebutting Them**

Scope differs depending on whether a CPA is retained to prepare a damage study or to rebut or discredit such a study. The CPA who prepares a damage study for a plaintiff acts as a creator by collecting and interpreting sufficient facts, testing assumptions for reasonableness, developing a model of what would have happened *but for* the defendant's actions, and drawing conclusions about the appropriateness and reasonableness of the study. In contrast, the CPA who rebuts or tries to discredit a damage study for a defendant acts as a critic by testing the correctness of the facts and then determining if all other steps undertaken by the expert who prepared the damage study were reasonable.

Unless the CPA who has been asked to criticize the damage study is asked to prepare a counterdamage study, he would not do so. Many defense attorneys believe that the burden of proof is on the plaintiff, and they do not want to perform this task for the plaintiff. If the plaintiff has not adequately "proved" damages, which is the reason the defense attorney retained an expert to criticize the plaintiff's proof, then the defense attorney wants the plaintiff to bring a new trial to prove damages.

Other defense attorneys, however, do not want the trier of fact to consider only one damage study when making a decision. They prefer to present their own alternate theories and calculations of damages to modify a possibly adverse decision. If the CPA is retained by this type of defense attorney, then the engagement's scope will include not only criticizing the plaintiff's study but preparing a counterdamage study as well.

### **Engagement Letters**

Using engagement letters in litigation services engagements presents special problems. The CPA may feel a need for protection by issuing a letter that specifies the engagement's purpose, what tasks need to be performed, and the terms of compensation. However, balancing this need is the fact that if the CPA is identified as an expert witness, the opposing party can discover the engagement letter. Furthermore, if tasks enumerated in the engagement letter are not completed, or worse, they are completed with adverse consequences to the CPA's client, an effective lawyer for the opposition may use this information to imply that the CPA's opinion is defective. The opposing side will have ample opportunity to question the CPA about the engagement letter at a deposition or trial. Although the CPA may have many good reasons for not undertaking or

completing the tasks originally specified in the engagement letter, a good cross-examiner may confuse the issue and give the trier of fact the impression that the CPA did not perform all the analyses required to substantiate the conclusions presented.

All things considered, engagement letters are acceptable. However, it would seem better not to issue overly detailed engagement letters in litigation services engagements. A sample engagement letter is included in the Appendix as exhibit 1.

## **Documentation**

A very important engagement consideration relates to the CPA's documentation preparation and retention practices. All materials prepared, accumulated, or referred to by a CPA acting as an expert witness in a case may be made available to his client's opponent. Thus, it is critical that at the outset the attorney and CPA develop a clear understanding of exactly what the CPA will be preparing and retaining for the engagement. If the CPA receives a subpoena and the CPA has materials and files never before shown to the lawyer and possibly harmful to the case, this could seriously damage the CPA-lawyer relationship.

# **Engagement Approach**

## **Assistance With Case Strategy**

Both the lawyer and client in civil litigation are advocates for their position, and this influences how they view the facts of a case. One of the principal services a CPA offers them is an objective professional review of the facts. If the lawyer does not know much about business, the CPA can help by explaining the business facts relevant to the legal theories of the case.

The CPA can suggest several different ways to prove facts or make points. For example, three common methods to compute lost profits follow.

*Before-and-after approach.* The CPA uses the periods before or after the impact of the alleged violation(s) or both to estimate what the plaintiff's performance should have been during the period of the alleged violation(s).

*Yardstick approach.* The CPA studies a similar company, industry, or market that was unaffected by the alleged violation(s) in order to estimate what the plaintiff's performance should have been during the period of the alleged violation(s).

*Sales projections (hypothetical profits).* The CPA creates a model of the impacted business by making assumptions based on how the plaintiff would have performed absent (but for) the alleged violation(s).

If a cost-benefit analysis is feasible, the CPA can also assist in determining which approach is most cost-effective by putting the various approaches in proper perspective. A typical example is choosing the best approach to determine the number of exceptions in a given population (that is, the number of invoices paid without documentation of approval). Possible approaches include reviewing the entire population, reviewing a statistical sample at various confidence levels, or reviewing a judgmental sample. Another example deals with computing the defendant's market share. The CPA can advise on the costs and benefits of the alternatives: expert opinion, primary research, secondary sources, econometric models, or detailed surveys.

### **Assistance With Discovery**

Basically, discovery takes place in the time between filing the original pleadings (the complaint and answer) and beginning the trial. Discovery is the attempt to find out what the other parties' facts and theories are. This is when most of the CPA's work is performed. The CPA collects all necessary facts, analyzes the facts, develops any assumptions, and reaches all conclusions.

Various legal tools are used in discovery, and the CPA may suggest the use of any or all of them as aids in performing his services. A brief description of the major discovery tools and their uses follows.

#### **Interrogatories**

Often the first discovery device used, interrogatories are written questions propounded by one party and served on the opposing party, who must answer the questions in writing, under oath. Interrogatories serve as an excellent tool to obtain information about the opposing party when little if anything is known about it. The CPA's special knowledge of business or a particular industry can help in constructing questions to develop a thorough understanding of an organization's systems, documentation, and structure. For example, the nature and extent of the opposing party's financial reporting and management information systems are possible areas of inquiry. The names and titles of officers or principals in the business can also be obtained for further discovery of their files.

#### **Requests for Production of Documents**

A request for production of documents requires one party to provide the opposing party with documents in its possession that are relevant to issues in the case. These requests usually follow interrogatories. They

must be very specific or the opposing party will not produce the documents, even when it is apparent exactly what information is sought. Therefore, each party needs to request exact titles of reports, which can be culled from the information already obtained through interrogatories or depositions.

The party responding to the request for production of documents does not usually copy the documents and send them to the requesting party. Instead, the documents are made available at the responding party's business or its attorney's offices. The requesting party is then given the opportunity to review the documents and decide which ones to copy at its own expense.

The requesting party's attorney will often want the CPA he has retained to go with him to review financial and other business documents produced by the opposing party. The CPA can be extremely helpful in identifying the relevant documents and in insuring that they are copied and the irrelevant documents are not. This is important because the copying costs during discovery can be quite high. In addition, the CPA and the attorney need to review any documents copied, and thus professional time in the case bears some relationship to the number of documents discovered. A knowledgeable CPA can significantly reduce unnecessary copying by identifying the types of financial and business records that are necessary to prove the issues. Exhibit 3 in the Appendix is a request for production of documents pertaining to the sample engagement.

## **Depositions**

A deposition is the oral testimony of a witness questioned under oath by an attorney. It is transcribed by a court reporter who reduces the examination to a written record that can be used in a court.

*The CPA giving a deposition.* When a CPA is retained as an expert witness, the opposition's attorney usually takes the CPA's deposition in order to fully understand the CPA's background and the bases for his opinions in the case. Often the deposition affords the only opportunity prior to trial for the attorney to question the expert in-depth. The attorney uses the deposition to size up the CPA as a trial witness, determine his strengths and weaknesses, and develop a comprehensive understanding of his opinions, studies, and analyses. However, some experienced attorneys prefer not to question experts at a deposition because it allows the experts to thoroughly test theories and approaches and then correct them as needed for the trial.

Questions at the deposition usually cover all work performed by the CPA, including rejected analyses, blind alleys, and information obtained but not used. In addition, the deposition can be used to narrow the scope of the CPA's testimony at the trial, because anything said at the deposition



can be used to impeach the CPA's credibility at the trial. Therefore, the CPA's testimony in the deposition and at the trial needs to be consistent.

Depositions of experts in federal cases are covered by federal rules of evidence and are not an absolute right of the opposing party. Usually, agreement by both sides or direction of the court is required to obtain an expert's deposition.

*The CPA helping an attorney take a deposition.* Although the only person who can ask questions at a deposition is the attorney, a CPA can be an extremely valuable assistant to the attorney during the examination of business people, particularly those in the financial or accounting areas. Most frequently the attorney asks the CPA to assist him at a deposition when he examines the opposition's expert. The CPA knows the language of business, including state-of-the-art terminology, and can usually detect a witness's uninformative answer or a sign of weakness that the attorney might miss. The CPA can suggest additional questions to the attorney by passing notes or by meeting with him during breaks in the deposition. In this way the CPA can help identify an inconsistency or expose a flaw in testimony.

Even if the attorney does not request the CPA's presence at the deposition, he will often ask the CPA to draft questions that the CPA would have liked to ask. These questions have two aims: (1) to clarify what the opposing expert did in his analysis and (2) to point out problems, inconsistencies, and errors in the analysis.

Again, lawyers differ in approach. Some believe it is not wise to make the witness aware of analytical flaws at the deposition. They prefer to hold this information for use at the trial. Others believe that the deposition can be used to point out the weaknesses in their opponent's case, thus encouraging settlement or, at a minimum, getting the expert to correct his presentation for use at the trial. Exhibit 4 in the Appendix is a sample list of possible deposition or cross-examination questions keyed to exhibit 2, the sample damage study.

### Subpoenas

A subpoena commands a person to appear in court. The subpoena *ad testificandum* commands a person to appear and testify as a witness. The subpoena *duces tecum* commands a person to produce documents in court that are then designated as evidence.

The subpoena is frequently the only method of obtaining information from third parties not related to the litigation. If the recipient of a subpoena refuses to cooperate, he can be found in contempt of court and jailed until he agrees to cooperate.

A party, including the CPA hired for the case, may file an objection to a subpoena with the court, thus requiring a hearing on the relevance and propriety of materials demanded. This practice is not recommended

because it might create a conflict between the CPA and his client, delay the trial, and generate costly legal fees. Occasionally, however, it may be necessary for the CPA to object if a subpoena requests irrelevant documents or materials related to his other clients. Often the opposing attorneys can reach a compromise agreement on how much they will try to discover about the CPA experts and thereby avoid issuing subpoenas or filing objections.

The opposing counsel may wish to go on a fishing expedition in the records of other nonparty clients of the CPA through the subpoena and deposition process. CPAs need to be careful not to violate rule 301 of the AICPA Rules of Professional Conduct, which requires the CPA to maintain client confidentiality. Since the CPA has a duty to comply with only a validly issued subpoena, he may find it necessary to test and verify the subpoena's validity before revealing confidential client information.

### **Requests for Admissions**

A request for admission is used to obtain the opposing party's verification of information as fact. The request must be relevant to the litigation. Verifying the information as fact is usually adverse to the interest of the party making the admission.

Requests for admissions help narrow the factual issues to be litigated at trial. Any facts that can be agreed on by both parties prior to trial do not have to be proved at trial. This can greatly decrease the time it takes to try a case and is therefore favored by the judiciary. The CPA can suggest the types of facts that the opposing party could admit prior to a civil litigation trial. The CPA can also assist the attorney in developing arguments about why certain business facts should or should not be admitted prior to trial.

### **Other Discovery Issues**

Documents or data obtained through the discovery process must be organized. The CPA can help in categorizing the information, developing or maintaining a retrieval system for it, and summarizing it for testimony.

Discovery includes obtaining third-party documents and data, which usually take the form of industry, competitive, or economic information. If the information is obtained from another client without the other client's express consent to use it for litigation or from a source that will not allow its disclosure, then it probably cannot be used to support an opinion at trial.

Economic and financial data are frequently stored electronically and are retrievable from computerized data bases. To use this information effectively, the CPA needs to understand how the data are input into the data bases as well as how the people who maintain the data bases can manipulate the information. All documents or data bases that are col-

lected and support the CPA's assumptions, conclusions, or opinions are properly organized and referenced in workpapers. Extraneous material is removed because it can lead only to needless cross-examination and confusion. Nonetheless, removals are proper grounds for examination at the deposition or trial.

Normally, a proper foundation must be established for all testimony and documentary evidence submitted during a trial. Typically, a witness cannot testify about information told to him by a third party. All documents submitted as evidence must be authenticated by their authors, recipients, or custodians. Otherwise the testimony or written evidence may be classified as hearsay or lacking a proper foundation and may be excluded from the trial.

However, a number of exceptions to the hearsay rule may affect the CPA acting as an expert witness. Under the federal rules of evidence, the expert witness is allowed wide latitude in what he may rely on to formulate an opinion. Items that would be properly excluded under the hearsay rule if admitted to *prove* something are all acceptable when the expert witness relies on them to *form an opinion*. Such items include research and academic literature available in the expert's field, as well as consultations with other experts and interviews with parties who have relevant information. The expert's testimony may be based on all his research, interviews, and conversations.

Another important exception to the hearsay rule relates to business records, which cover journals, ledgers, files, correspondence, financial statements, or other records created or maintained in the normal course of business. The CPA expert witness may rely on such records without auditing them. Of course, if the opposing side shows any inaccuracies or deficiencies in such records during cross-examination or surrebuttal, the disclosure may impact how the trier of fact weighs the expert's opinion.

## Analysis

Analysis is of course the best use of the CPA's expertise. It involves making a series of assumptions and calculations to form opinions and prepare testimony. Analysis may have a broad or narrow focus, depending on the circumstances of the case.

Since the opposing party's examination of the CPA will focus primarily on this work, it needs to be well thought out, based on thorough study, and properly supported and documented. In many instances formal written documentation may be appropriate. In other situations the CPA needs to be fully prepared to orally document his sources and rationales. To the extent that the CPA uses computer models and programs, he needs to be prepared to explain in detail the logical relationships and calculations contained in these models.

A large portion of the CPA's work for the plaintiff in a litigation services engagement is done to create financial projections for a lost-profits damage study. Obviously such a task involves a significant degree of uncertainty because it projects profits the plaintiff would have earned over some time period if the defendant had not interfered in some manner. Over the years the federal courts have come to recognize the difficulties plaintiffs face in damage studies and, in a long series of cases, have accepted the concept that once the fact of damage is proven, the amount of damage may be proven with much less certainty and precision. The courts have reasoned that the defendant should not benefit from the very activities that the plaintiff alleges not only caused the damage, but make it difficult to calculate as well. Thus, they have allowed experts significant latitude in proving the amount of damages as long as reasonable assumptions are used and the best information available is relied on in constructing the damage estimate.

Exhibit 2 in the Appendix is a sample lost-profits damage study. The following discussion of the factors that are analyzed to produce a lost-profits damage computation will enhance understanding of exhibit 2.

#### **Defining Relevant Markets and Computing Market Share**

The size and composition of a market may directly impact a plaintiff's sales potential. Basically the CPA evaluates two factors, geography and competition, to determine the extent and nature of the market for the products or services in question.

A market's geographic range influences how lost profits are calculated. For example, a vendor in a local market could claim it had plans to expand to national or even international distribution. The CPA needs to determine the feasibility of this claim by asking the following kinds of questions:

- Is there demand for the product or service on the national and international level?
- Do extrinsic factors, such as prohibitive transportation costs, limit the potential expansion?
- Did the vendor try to expand in the past and fail because of its own poor planning?

The number and kind of competitors affect potential profitability as well. Questions the CPA might ask include the following:

- How many competitors are there in the given market?
- Does one large competitor dominate the market or do numerous small competitors constantly jockey for position?
- If the plaintiff is a relatively new vendor, is its chosen market difficult to enter? What has been the actual history of entry and exit to this market? Are there significant capital requirements or other barriers to entry?

- Do any of the competitors possess advantages such as patent protection, copyrights, trade secrets, name recognition, or head starts?

The relevant market for a product or service might include the markets for other *similar* products or services. For example, the ballpoint pen market might include the felt-tip pen market because both meet the same need as writing instruments.

The CPA considers whether to include other products or services in defining the market. In addition, the CPA considers the effect that a change in price on one product or service will have on the sales of a substitute product or service.

After the CPA has determined who the competitors are, he can calculate the market share of each and whether it is relatively constant or it fluctuates over time. By using the but-for model, he can then calculate whether the defendant's allegedly improper acts altered the number of competitors and their market shares.

### **Restating or Reconstructing Financial Records**

The civil judicial system is relatively slow in bringing cases to trial, and as a result, many years can pass between the time alleged injuries occurred and experts are retained and asked to prove damages or reconstruct what actually happened. Even in well-managed businesses, old records have a tendency to get misplaced or destroyed because very few managers put a high value on them. The information that managers need and want generally deals with what is happening now and in the future. Therefore, records prepared in the normal course of business are sometimes not available or have gaps by the time the CPA identifies the types of documents relevant to proving or disproving damages.

More and more businesses today are multi-product-line companies, and therefore the alleged injury usually does not affect the entire company. The financial statements of the entire company, although relevant and helpful, may not be needed to prove damages to only one product line of a company. Ideally, the plaintiff company has product-line financial records and a well-documented accounting system that allocates common costs among the different product lines. Frequently, however, this is not the case.

New or fast-growing companies often do not have accounting systems that have kept pace with the company's needs. In these situations, a CPA reconstructs or creates accounting records by making reasonable assumptions and by using cost accounting theory to prove the losses suffered by the plaintiff company.

When a CPA is retained to analyze financial records that have not been professionally prepared (that is, prepared by another CPA), there is no assurance that the financial statements are in accordance with generally accepted accounting principles. The CPA, to the best of his

ability, may wish to reconstruct or restate these financial records to conform to GAAP. However, as previously stated, it is not incumbent on the CPA to audit the records. The CPA may still wish to rely on the financial information unless he is concerned about its accuracy.

### Calculating Actual Losses

A lost-profits claim is usually computed as either an incremental damage claim or the difference between what actually happened and what should have happened. The incremental approach requires calculating lost incremental profits related only to the units that would have been sold but for the defendant's actions. The other approach requires computing the plaintiff's actual total profits for the product line impacted by the defendant's actions or inactions.

As an example, assume that a plaintiff actually sold two hundred units and claims it would have sold an additional one hundred units if the defendant had not interfered. The plaintiff's CPA computes incremental damages by considering only what profits would have been on the additional one hundred units. Using the other method, the difference between actual profits and what they would have been, the CPA computes profits on the hundred units actually sold and subtracts the estimate of but-for profits from the three hundred units that would have been sold.

If successfully brought at trial, a lost-profits damage claim is normally taxable to the plaintiff. Therefore, the relevant loss to the plaintiff is the difference between actual pretax profits or cash flow and the projected pretax profits or cash flow the plaintiff would have earned but for the defendant's conduct.

If the defendant's behavior caused a reduction in the plaintiff's sales volume, actual total profits may be used to model what would have happened but for the defendant's alleged violations. Using cost-volume relationships developed from actual transactions to determine fixed versus variable costs, the CPA computes the profitability of the incremental lost sales. This is accomplished by subtracting the variable costs from the revenue produced by the incremental sales, assuming the relevant range of the fixed costs has not been exceeded.

Another remedy often sought by plaintiffs is restitution, particularly through rescission of a contract. Restitution is the restoration of anything to its rightful owner and the return of both parties to their original condition. To restore the plaintiff's original condition requires calculating actual losses suffered.

Although economists, management consultants, and business professors can be retained to perform damage quantification in litigation, computation of the plaintiff's actual losses is often given to the CPA to perform because he is preeminent in doing this. The CPA has the training, education, and experience to expertly calculate what actually happened.

## Developing Profit and Cost Relationships

Analyzing profit and cost relationships is essential to make assumptions about what these relationships would have been in the but-for world. This analysis may be of the plaintiff's profit and cost relationships or of other organizations that the CPA believes would have had relationships similar to the plaintiff's but-for organization.

The CPA may conclude that some of the plaintiff's actual profit and cost relationships would remain the same in the but-for model, whereas other relationships were affected by the defendant's behavior. Isolating the impact of the defendant's behavior on the plaintiff is difficult and requires a reasonable effort to consider other factors that could have affected the plaintiff's profitability in the but-for world. Using actual relationships lets the CPA consider effects of factors unrelated to the alleged problems caused by the defendant. For example, if the plaintiff had incompetent management, high turnover of employees, a strike, a fire, a bad financing arrangement, or any other problem unrelated to the defendant's actions, then these problems would be included in the but-for model.

To compute lost profits, the CPA needs to compute the amount of revenues lost. However, different approaches exist to calculate the lost profitability. The CPA can determine the relationship of profit to revenue without a detailed analysis of costs. (Regression and other econometric tools may be useful here.) The CPA can also model each cost element necessary to generate the lost revenue in a cost-buildup approach. Using a third method, the CPA can model significant cost groupings of units (for example, cost of goods sold; operating expenses; sales, general, and administrative expenses; or other income and expenses). Any of these approaches is valid, and the method chosen depends on the facts of each case and the availability of data.

## Developing Pro Forma Financial Statements

Pro forma financial statements in a lost-profits damage study assume that the defendant violated a legal right of the plaintiff and that this violation caused financial harm to the plaintiff. Preparation of the statements can be based on either past or future calculations. The plaintiff must show what financial performance would have been but for the defendant's violations.

The CPA engaged in preparing expert testimony may develop pro forma financial statements. However, the AICPA's authoritative statement on prospective financial statements, issued in October 1985, *Financial Forecasts and Projections*, does not apply to pro forma financial statements made in litigation services engagements. Paragraph 3 states:

This Statement does not provide standards or procedures for engagements involving prospective financial statements used solely in connection

with litigation support services, although it provides helpful guidance for many aspects of such engagements and may be referred to as useful guidance in such engagements. *Litigation support services* are engagements involving pending or potential formal legal proceedings before a "trier of fact" in connection with the resolution of a dispute between two or more parties, for example, in circumstances where an accountant acts as an expert witness. This exception is provided because, among other things, the accountant's work in such proceedings is ordinarily subject to detailed analysis and challenge by each party to the dispute. This exception does not apply, however, if the prospective financial statements are for use by third parties who, under the rules of the proceedings, do not have the opportunity for such analysis and challenge. For example, creditors may not have such opportunities when prospective financial statements are submitted to them to secure their agreement to a plan of reorganization.

The statement generally deals with the CPA as a reviewer of prospective financial statements made by a client and excludes pro forma statements. In litigation services the CPA frequently prepares assumptions for pro forma financial statements. In these cases, the CPA is not reviewing the assumptions of someone else but is solely responsible for the reasonableness of the assumptions. The CPA uses experience, judgment, and analytical abilities to establish assumptions for the pro forma financial statements. The CPA's opinion is probably the only evidence on pro forma damage statements that the trier of fact is interested in hearing. Although not binding, paragraphs 9 through 11 of appendix C in *Financial Forecasts and Projections* provide excellent guidelines dealing with the CPA's consideration of assumptions when preparing a pro forma financial statement.<sup>1</sup>

If a CPA is not qualified by experience to make a particular assumption, then the CPA can rely on another expert or on the party he is representing to make the assumption. The CPA's pro forma financial statements will then be based in part on the assumptions of others. Typically, these other people would be required to testify about the assumptions they have provided to the CPA.

Understanding the bases for all the assumptions included in a damage study usually requires taking the deposition of the expert preparing the pro forma analysis. No standard of disclosure for assumptions in a lost-profits damage study exists, nor can one be formulated. Different experts, in consultation with attorneys/clients, will often vary in the degree that they explain the assumptions accompanying their pro forma financial statements used to calculate lost profits.

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1. See Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections* (New York: AICPA, 1985). The *Guide for Prospective Financial Statements* (New York: AICPA, 1986) also contains useful guidelines dealing with the CPA's consideration of assumptions when preparing pro forma financial statements.



## Preparing But-For Lost-Profits Models

A damage model represents the expected financial performance of the plaintiff *but for* the defendant's alleged violations. The model usually shows the difference between what actually happened and what would have happened absent the defendant's allegedly improper conduct. The model may also take the form of an incremental calculation, which ignores what actually happened and simply focuses on the profitability of additional sales that would have occurred had the defendant not interfered as the plaintiff claims it did.

A damage model is simply the framework used to quantify the plaintiff's damages, given the assumptions underlying the damage study. This model can be prepared either manually or with a computer. Computer modeling gives the CPA a greater sophistication and range of approaches to consider before choosing a final approach in calculating damages. Available microcomputer software permits consideration of econometric and statistical approaches to computing damages on a cost-effective basis. Financial modeling languages, once available only through expensive time-sharing services, are now also available for microcomputers.

Spreadsheet software on microcomputers is extremely useful in damage-claim modeling. The ability to change assumptions and recalculate the model quickly and inexpensively is a tremendous advantage over manually created models. The sensitivity of the damages to changes in assumptions can be easily tested, along with the reasonableness of the assumptions, given the end result. (Of course, the opposing party may rightfully query the CPA about each run or analysis he has made in preparing the study.)

A spreadsheet program's logic must be understood in order to understand the model it generates. Logic consists of the mathematical relationship between the data that is input into the "cells" of the spreadsheet. Therefore, the defendant needs to obtain the program's logic description during discovery.

## Expert Opinion

Before an expert witness can testify at trial, he must be *qualified* as an expert in the particular field he will testify about. Qualification consists of establishing the witness's expertise in a particular field. To qualify a witness, the attorney who has called him asks a series of questions about such matters as academic degrees, academic honors, professional licenses, positions held, publications, membership and positions in professional societies, previous experience, and other cases in which the witness provided testimony.

CPAs are commonly used as experts in proving damages.<sup>2</sup> A CPA may be an expert in a particular industry based on the types of clients he has served. The CPA may also be an expert in the application of certain accounting, financial, statistical, or econometric techniques relevant to issues in a case.

If the opposing side challenges the expertise of a particular witness, the opposing attorney may ask to examine him under *voir dire* at the outset of his direct testimony, to determine his expertise or lack of it. After the opposing attorney has completed his questioning, he may move to have the witness designated as not qualified to express an expert opinion. If the opposing attorney succeeds, the judge will not permit the potential expert to testify. However, if the CPA presenting damages testimony has practiced for a number of years and has done a professional job, it would be extremely unusual for such testimony to be excluded based on the CPA's lack of expertise.

Under federal rules of evidence, an expert can testify about the *ultimate issues* of a case, which are issues on which the trier of fact must make a decision. Guilt or innocence, the cause of damages, and the amount of damages are all ultimate issues. Although it is the responsibility of the trier of fact to make the decisions on these issues, an expert witness can give an opinion on them. This means a credible expert witness may have a major impact on the outcome of the litigation.

Expert opinion is the opinion of the individual testifying. A CPA firm cannot testify, only an individual CPA. The opposing party has the right to cross-examine the expert under oath. Obviously, a CPA firm cannot be cross-examined; only a member of the firm can be cross-examined. In the end it comes down to the opinion of the person on the stand when testifying.

## Use of Staff

If a CPA testifies from a report, it is preferable that his own staff prepare the report. Preparation includes accumulating the data, performing the analyses, and drafting the report. This is important because any work the CPA relies on must be performed under his direction and control or there may be a challenge to the admissibility of the report. If the CPA does not oversee the work, someone else may have to testify about the methods and data sources used in order for the evidence to survive a hearsay objection.

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2. For citations to legal cases that have so held, see Robert L. Dunn, *Recovery of Damages for Lost Profits*, 2d ed. (Tiburon, Calif.: Lawpress Corp., 1981), 297.

## **Presentation of Results**

### **Oral Testimony by Expert Witnesses**

In most litigation services engagements, experts present results to the trier of fact as testimony covering findings, conclusions, and opinions. Most commonly testimony is oral and consists of answers to questions asked by the attorney who retained the CPA. These questions and answers are known as direct examination, which is slow and deliberate and normally takes many pages of a transcript to complete. (It is therefore impractical to give an example of it in the Appendix.)

After the conclusion of direct examination, an attorney representing the other party examines the CPA by asking questions that must be answered. This is known as cross-examination. The next phase, rebuttal, follows cross-examination. The attorney who offered the CPA as an expert has the right to ask more questions limited to issues raised during cross-examination. Finally, in the phase known as surrebuttal, the opposing party's attorney has the right to ask questions limited to issues raised during rebuttal. The expert is under oath during all these phases.

The expert witness may introduce exhibits to support or illustrate the opinion during direct or rebuttal testimony. The expert witness also gives opinions about facts or hypotheses. Neither the oral testimony nor the exhibits need be documented in the form of a formal written report.

### **Written Reports by Expert Witnesses**

Testimony, especially that of experts, may be written at times as a result of stipulation by the parties or a judge's request for trial efficiency. Under these circumstances the CPA may render his testimony as a written report, which can vary from only a written statement of the expert's opinion to an extensive report with detailed assumptions and supporting schedules showing all computations. For example, the sample lost-profits damage study in the Appendix could be an exhibit supporting the expert's opinion, or it could be submitted without testimony as the expert's conclusions.

Another variation is when there is no direct oral examination. Instead, the expert submits the direct testimony in writing, and only the cross-examination, rebuttal, and surrebuttal are oral. This method speeds up the presentation of expert testimony, although it may not be as easy for the trier of fact to comprehend.

There are no specific elements for reports in litigation services engagements, because the form and content are closely controlled by the lawyer retaining the CPA. However, the CPA would insist that his conclusions and analyses not be misrepresented by the form or content of the presentation.

## Written or Oral Reports by Consultants

If the CPA has been engaged as a consultant to the attorney, he normally produces either a written or oral report. The written report can take any form desired by the attorney. Common written forms include questions for interrogatories, a list of documents to be produced (see exhibit 3), questions for depositions or cross-examination (see exhibit 4), and hand-written notes to an attorney during the deposition of an opposing party's witness. Common oral forms include a discussion of the CPA's findings or conclusions related to sufficiency of evidence and the CPA's opinions about appropriate strategies to take in settling litigation.

Some lawyers do not want a written report, even when the CPA is retained as a consultant to the attorney and the CPA's work is protected by the attorney work-product privilege. There are two reasons for this. First, the attorney work-product privilege is not absolute. By showing undue hardship, the opposing party may obtain a judge's order exempting an expert's work from the attorney work-product privilege. Therefore, there is a slight chance that a written report, which may include possible negative implications for a client's case, may be turned over to the opposing party. A risk-averse attorney will avoid even this slight chance.

Second, the attorney may change his mind and designate the CPA, who was previously retained as a consultant, as an expert witness. The attorney may then be forced to turn over the CPA's report to the other side because it may no longer have the protection of the attorney work-product privilege. However, since the CPA prepared it under that privilege and assumed it was confidential, he may have included statements that are adverse to the client's interests.

## Exhibits

A CPA's testimony about damages usually requires explaining a great many numbers and mathematical formulas along with accounting and economic theories. Most triers of fact, especially juries, consider this type of testimony extremely dry and difficult to comprehend. Therefore, whenever possible, a diagram rather than a table or schedule of numbers should be used to explain a difficult concept or relationship.

Three sample exhibits prepared for the illustrative lost-profits damage study are in the Appendix. Exhibit 5, which the plaintiff may want to introduce, is a bar chart showing the expected pattern of pretax profit to be received over the twelve years of the damage study.

Exhibit 6, a bar chart that represents yearly cash flows assumed in the study, shows a *cumulative negative* cash flow for the first six years. A defendant may want to use such a chart to raise doubts about the plaintiff's case in the mind of the trier of fact. For example, could the

plaintiff have survived long enough to have realized the positive cash flows generated in years 7 through 12? Exhibit 6 also shows that all the profits in the damage study are still in the future. They are thus arguably more speculative and, of course, must be discounted back to present value.

Exhibit 7 is a pie chart showing the relationship of various major cost elements to total sales. Exhibit 7 and exhibit 5 are the kind of material that either a plaintiff or defendant may want to use.

### **Affidavits and Declarations**

In some instances testimony may be given either by affidavit or declaration. An affidavit is a written statement made under oath. It is normally used during trial. A declaration is a witness's unsworn written statement, but it is normally accompanied by another statement that it would be the same if made under oath. Because a declaration is unsworn, it is normally used to support pretrial motions.

### **Workpapers**

A CPA's workpapers supporting his opinion may or may not be introduced as exhibit(s) at trial. Normally they are not, because the trier of fact usually has neither the inclination nor the ability to review the CPA's workpapers. However, if the workpapers support opinions contrary to those offered by the CPA or if errors and inconsistencies in the workpapers are discovered by the opposing party, the opposing party may introduce the workpapers as evidence of the carelessness of its opponent's CPA or the fallacy of the CPA's conclusions.

To protect against such use of workpapers, the CPA carefully controls the content of the workpapers and corrects or avoids collecting any materials that are irrelevant for his opinion. The CPA cannot remove anything after receiving a subpoena. Any relevant documents prepared by the CPA, whether or not they support his opinion, must be produced in response to a subpoena. In addition, if the CPA's workpapers are introduced into evidence, he loses custody of them because they become the property of the court.

## **Conclusion**

Regardless of its form, the CPA's testimony communicates his findings, conclusions, and opinions to the trier of fact in concise and simple terms. The effective expert witness will convince the trier of fact through intel-

ligence, experience, independence, and sincerity, keeping in mind the need to explain technical terms. The CPA who possesses and uses these attributes in a litigation services engagement will be a credit to his client and the profession.

These same qualities are also necessary when the CPA serves as a consultant to the lawyer. The lawyer needs someone whom he can use as a sounding board for his ideas and understanding of the facts and strategies. The CPA does not just echo the positions of the lawyer; he needs to give sound advice from an independent perspective.

## APPENDIX

# Illustrative Litigation Services Engagement

## Background Information

The plaintiff in this illustrative engagement is Vending Operator, Inc., and the defendant is State. The case focuses on State's contract with Vending Operator to install and operate vending machines at roadside rest stops.

State had developed a number of roadside rest stops along its intrastate and interstate highways. As a further convenience to motorists, State decided to put vending machines at the rest stops to dispense food, drinks, and sundries. Before committing to a statewide program, State decided to try a test program that placed vending machines at five roadside rest stops for two years. State sent out a request for proposal (RFP) soliciting bids to install and operate vending machines at the five test sites.

Only one company, Vending Operator, responded to the RFP. Since Vending Operator appeared to be qualified, State awarded the contract to it. Vending Operator, to protect its investment in starting up the test program, required State to give it two consecutive options to operate vending machines at the roadside rest stops after the test period if the test was successful. Each option period would run for five years (that is, from years 3 through 12 of the program). State agreed to this and entered into a contract with Vending Operator.

The contract stipulated that Vending Operator was to install and operate the vending machines, which would require designing and erecting buildings at each of the rest stops to house the vending machines, all at the expense of Vending Operator. State would supply the land rent-free and provide all necessary utilities.

Vending Operator was to sell items in the vending machines at the prevailing price for these items in the given locality. State would receive a royalty of 2 percent of sales in the first year and 3 percent in the second year of the test program. If Vending Operator exercised its first five-year option after the test period, the royalty percentage would be renegotiated at that time.

Vending Operator was to provide State with monthly statements detailing the revenues and expenses of operating the five test sites. State had the right to audit these statements if it so chose.

Vending Operator was responsible for maintaining the cleanliness and safety of the area around the vending machines and was also responsible for the timely payment of all state taxes as conditions of the contract.

At the beginning of the test period, State had ninety-one operational rest stops along its highways. Of those, forty were along intrastate highways and fifty-one were along interstate highways. During the first year of the test, two additional rest stops were completed, both along interstate highways. State had plans for building a total of 160 roadside rest stops.

This plan was being reconsidered because of State's limited funds and a lack of federal assistance, but no new plan had been submitted to the legislature at the beginning of the program. In addition, preexisting federal law prohibited the operation of vending machines along federal highways when the test was begun. However, this law was changed in the program's sixth year, thus permitting the installation of vending machines along federal highways.

Vending Operator built the five structures and installed the vending machines. But after a full year of operation, State was unhappy with Vending Operator's performance. State asserted that royalties were below the projected amount, Vending Operator was consistently late in paying royalties and sales tax, and maintenance of the vending machines was substandard. After consulting with its attorney general, State notified Vending Operator that it was not going to continue the vending machine program after the test period.

Vending Operator, which had lost money in the first year, immediately stopped operating the five test sites and filed a breach-of-contract action in the state courts. Vending Operator sued State for the lost profits projected for the full twelve-year contract (the two-year test program plus both five-year options).

Both sides retained CPAs. Vending Operator asked its CPA to prepare a lost-profits damage study and testify about it at the trial. State asked its CPA to analyze the lost-profits damage study and help State's attorneys cross-examine Vending Operator's CPA, at both the deposition and the trial.

## **Objectives**

### **For the CPA Retained as an Expert Witness by the Plaintiff (Vending Operator)**

1. To prepare a lost-profits damage study for Vending Operator
2. To testify about lost-profits damage as an expert witness at the deposition
3. To testify about lost-profits damage as an expert witness at trial

### **For the CPA Retained as a Consultant by the Defendant (State)**

1. To analyze the weaknesses and errors in the lost-profits damage study prepared by the plaintiff's expert
2. To prepare deposition questions to challenge the plaintiff's damages expert by pointing out errors and weaknesses in his lost-profits damage study
3. To prepare cross-examination questions to challenge the expertise of the plaintiff's damages expert and to point out errors and weaknesses in his lost-profits damage study

## **Intended Benefits**

### **For the CPA Retained as an Expert Witness by the Plaintiff (Vending Operator)**

1. To obtain a practical settlement by convincing the defendant, the defendant's attorney, and the defendant's experts that the damages computed for the plaintiff were caused by the defendant's actions and that the amount computed is reasonable. (The more convincing the plaintiff's expert can be, the easier it may be to obtain a pretrial settlement satisfactory to the plaintiff.)
2. If the litigation is not settled before trial, to persuade the trier of fact that the damages computed for the plaintiff were caused by the defendant's actions, that the amount computed is reasonable, and that it is based on the best evidence available



### **For the CPA Retained as a Consultant by the Defendant (State)**

1. To obtain a pretrial settlement by convincing the plaintiff, the plaintiff's attorney, and the plaintiff's experts that the damages computed for the plaintiff were either not caused by the defendant's actions or that the amount computed is incorrect and overstated
2. If the litigation is not settled before trial, to persuade the trier of fact that the damages computed for the plaintiff are speculative and cannot serve as the basis for awarding damages to the plaintiff

### **Factors Analyzed to Produce a Lost-Profits Damage Study**

#### **Market Definition**

*Geographic definition.* The market in the sample engagement can be broadly defined as motorists who purchase food, drinks, and sundry items while traveling in State. Based on the terms of the contract, the market could be narrowed geographically to all existing and potential highway rest areas in State during the term specified.

Vending Operator desires a broader definition of the geographic market than the physical boundaries of State. It argues that if the test period had been successful, profitable vending operations would have been started at roadside rest areas in other states. State wants a narrow geographic definition of the market that includes only existing highway rest areas in State. It explains that any proposed new locations are too speculative to be a basis for computing lost profits.

*Competitive definition.* Vending Operator claims it has 100 percent of the market, a head start over any other potential competitor, and a legal monopoly from State because the contract assumes Vending Operator has the exclusive right to install vending machines at highway rest areas in State during the term specified.

State argues that it did not have the legal right to grant a monopoly to Vending Operator even if it could be assumed from the contract, because other vending operators in State would compete for available highway rest areas if the program proved profitable.

State also wants to define the market broadly in the context of supply available to meet the motoring public's demand for food and sundry items by including competition from vending machines at gas stations, fast-food outlets, and other food sources not located along State's highways.

#### **Financial Records**

Vending Operator has only one year of actual operating experience. The first year's financials were compiled by a CPA. No statement of changes in financial position was prepared. The CPAs of both Vending Operator and State will evaluate Vending Operator's accounting records to insure that no other relevant violations of GAAP occurred.

#### **Actual Losses**

Vending Operator, in business for only one year, claims that State's actions caused it to lose more money than it should have in this one year. It is attempting

to prove this incremental loss as additional damages. Because exhibit 2, the damage study, adds the total actual loss in year 1 to the computation of damages, combining the amounts assumes that Vending Operator should have broken even for year 1 in the but-for world.

The CPA retained by Vending Operator should ask about Vending Operator's expectations for the profitability of first-year operations in any projections made before the start-up of the business. To determine if any of the factors cited as contributors to a loss actually caused either a decline in revenue or an increase in any costs, the CPA analyzes Vending Operator's first-year revenues and costs in relation to the factors. The CPA retained by State makes the same determinations about causation and forms an opinion on the reasonableness of Vending Operator's allegation about any loss in year 1.

### **Profit and Cost Relationships**

Vending Operator's CPA used the principal assumptions listed on page 37 of exhibit 2 to prepare the rest of the damage study. The CPA then modeled sales on Vending Operator's actual sales history in its one year of operation and modeled each of the twenty-four expense categories in the income statement, including cost of sales, separately. (The actual income statement for year 1 and the projected income statements for years 2 through 12 are included on page 38 of exhibit 2.) Ten of the categories were modeled on Vending Operator's actual experience in year 1. These categories are depreciation, dues and subscriptions, outside services, rent, repairs and maintenance, security, taxes and licenses, payroll taxes, sales taxes, and utilities. The CPA modeled the remaining fourteen expense categories independent of Vending Operator's actual experience, because he believed Vending Operator's actual experience did not properly indicate how these costs would behave in the but-for world.

State's CPA needs to make a detailed analysis of assumptions and relationships developed by Vending Operator's expert and determine whether they are reasonable. State's CPA was not asked to recalculate the damages based on assumptions and relationships he believed were reasonable. Instead, he was instructed to point out any unreasonable assumptions in Vending Operator's damage study so that the judge and jury would conclude that Vending Operator had not proved the alleged damages. State's CPA also prepared a list of questions for the deposition of Vending Operator's expert. These questions (exhibit 4 in the Appendix) seek additional information about the reasoning for some of the assumptions or point out errors or weak assumptions.

### **Pro Forma Financial Statements**

The sample damage study covers both past and future years. The trial "takes place" in year 7 of the damage study. The CPA should make sure that assumptions used in the past years are not inconsistent with actual events that were unimpacted by the defendant's violations, for example, the general rate of inflation, interest rates, or the effects of a recession.

The assumptions necessary to generate the pro forma income and cash flow statements on pages 38 and 39 are contained on pages 37, 40, and 41. The assumptions are both explicitly stated on page 37 and implicitly stated by analyzing the schedules on pages 40 and 41. Assumptions that are explicitly stated

include the sales per unit and their increases from year to year, the cost of sales, and the number and cost of trucks needed in each year of the projection. Assumptions that are not explicitly stated include the amount of borrowing necessary to finance the business, the rate of payback on the borrowed money, the method of calculating interest expense, and the method of handling investment tax credit.

#### **But-For Lost-Profits Model**

The CPA prepared the sample damage study by using a popular spreadsheet program available for most microcomputers. The program calculated Vending Operator's projected income statement on page 38 of exhibit 2 (as well as the data on pages 39, 40, and 41) by using the assumptions on page 37. For example, sales in year 1, listed on page 38, totaled \$272,100. This figure is the product of the number of stations, 5, multiplied by the sales per unit, \$54,420, which are both assumptions on page 37. The logic that multiplies these assumptions exists in the cell on page 38 beneath the number \$272,100.

**Sample Engagement Letter**

CPA & Company  
Anytown, USA

September 4, 19XX

John Smith, Esq.  
Smith, Smith & Jones  
100 Courthouse Way  
Anytown, USA

RE: Vending Operator, Inc., v. State

Dear Mr. Smith:

This letter constitutes a retainer agreement between the law firm of Smith, Smith & Jones and CPA & Company under which we will provide such consulting services as you or your client, State, may require in connection with the above-mentioned litigation. We have been retained as consultants only; however, we understand and accept that we may be requested to furnish judicial testimony.

We will submit monthly bills to you, payable within XX days, which will be based on our standard hourly rates for this type of consulting plus out-of-pocket expenses that may be incurred on your behalf. We will meet with you to define tasks in advance and estimate the cost of each task before incurring any substantial fees for a task.

(optional clause for a retainer)

Our customary practice in litigation consulting engagements is to receive a retainer of \$XXX before beginning work. We will hold this retainer and apply it to the final bill for this engagement.

This agreement will become effective as soon as you sign and date it and the enclosed copy as indicated. Please forward the copy to us.

Sincerely,

\_\_\_\_\_  
(Name and Title)  
CPA & Company

Accepted by \_\_\_\_\_  
Date \_\_\_\_\_

**Sample Lost-Profits Damage Study**  
**Table 1: Lost-Profits Model Prepared by Vending Operator's Expert**

Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Number of stations	5	20	40	50	70	90	100	120	140	160	160	160
Cost per unit <sup>2</sup>	\$16,000	\$34,000	\$36,040	\$38,202	\$40,494	\$42,924	\$45,499	\$48,229	\$51,123	\$54,190	\$57,441	\$60,887
Replacement units, cost of	\$ 8,000	\$17,000	\$18,020	\$19,101	\$20,247	\$21,462	\$22,750	\$24,115	\$25,562	\$27,096	\$28,722	\$30,445
Loan-interest rate	12.00%	14.00%	16.00%	18.00%	16.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
Trucks, number of <sup>3</sup>	3	3	4	4	4	5	5	7	8	10	10	10
Replacement/new	3		1		3	1	1	2	3	3	1	2
Purchase price	\$ 4,000	\$10,000	\$10,600	\$11,236	\$11,910	\$12,625	\$13,383	\$14,186	\$15,037	\$15,939	\$16,895	\$17,909
Operating cost	\$ 1,500	\$ 1,590	\$ 1,685	\$ 1,786	\$ 1,893	\$ 2,007	\$ 2,127	\$ 2,255	\$ 2,390	\$ 2,533	\$ 2,685	\$ 2,846
Sales per unit	\$54,420	\$57,685	\$61,146	\$64,815	\$68,704	\$72,826	\$77,196	\$81,827	\$86,737	\$91,941	\$97,457	\$103,304
Cost of sales	67.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%
Insurance	\$ 5,377	\$ 7,500	\$10,000	\$12,500	\$15,000	\$17,500	\$20,000	\$22,500	\$25,000	\$27,500	\$30,000	\$31,800
Repairs per unit	\$ 450	\$ 477	\$ 506	\$ 536	\$ 568	\$ 602	\$ 638	\$ 676	\$ 717	\$ 760	\$ 806	\$ 854
Taxes	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
Payroll	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Sales												

## Notes

- Year 1 shows actual operating results for Vending Operator's five test sites.
- The units are estimated to cost \$34,000 (increasing by 6 percent per year) for both machines and buildings. For year 1 units were rented. The buildings are estimated to last twenty years and the machines ten years.
- The forecast assumes the opening of ten to twenty units per year.
- The number of trucks required are one for each repairman per office and one route truck for each twenty-five locations.
- The trucks are estimated to last five years with an average cost of \$10,000, increasing by 6 percent per year for additional trucks.
- Sales are based on \$54,420 per unit per year, increasing by 6 percent per year.
- Cost of sales are based on 47 percent of sales (national average).
- Salaries are based on the table on page 40 with yearly increases of 6 percent. After year 1 new employees are assumed to be hired at midyear.
- Commissions are 7 percent of sales (based on the contract with State).
- Truck expense is assumed at \$1,500 per year per truck with 6 percent increases per year.
- Depreciation is computed using the straight-line method.
- Interest is computed on the funds necessary for operations at an interest rate of 12 percent to 18 percent.
- Rent is computed at \$3,300 per year, increasing by 6 percent per year. Two additional offices are projected to be opened, one in year 4 (at a reduced rate in the first year) and one in year 7.
- Repairs are based on \$450 per unit per year, increasing by 6 percent per year.
- Security is a one-time charge for the units and is estimated to be \$70 per unit, increasing by 6 percent per year for additions.
- Payroll taxes are based on 12.5 percent of salaries.
- Sales tax is based on 4.5 percent of sales.

Prepared by CPA, to Be Used Solely With Testimony in This Case

Table 2: Vending Operator's Pro Forma Income Statement

Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Total
Sales*	\$272,100	\$721,065	\$1,834,389	\$2,916,679	\$4,122,240	\$5,828,099	\$7,333,602	\$9,001,031	\$11,275,838	\$13,791,217	\$15,593,289	\$16,528,865	\$98,216,394
Cost of sales	182,307	338,901	862,163	1,370,639	1,937,453	2,738,267	3,446,793	4,230,465	5,296,644	6,481,872	7,328,636	7,768,567	41,986,127
Gross profit	\$ 89,793	\$382,164	\$ 972,226	\$1,545,940	\$2,184,787	\$3,107,832	\$3,886,809	\$4,770,566	\$5,976,194	\$7,309,345	\$8,264,433	\$8,760,298	\$47,230,267
Other expenses													
Salaries	\$72,049	\$153,064	\$ 258,091	\$ 384,036	\$ 507,011	\$ 665,171	\$ 958,835	\$1,220,797	\$1,449,924	\$1,681,032	\$1,847,080	\$1,957,905	\$11,775,695
Commission to State <sup>7</sup>	19,047	50,475	128,407	204,168	288,557	407,827	513,352	630,072	789,309	965,385	1,091,529	1,157,021	6,245,148
Accounting	9,481	5,000	5,000	10,000	10,000	10,000	10,000	10,000	15,000	15,900	16,854	17,865	135,100
Advertising	17	0	0	0	0	0	0	0	0	0	0	0	17
Truck expense <sup>8</sup>	11,631	4,770	6,742	7,146	7,575	10,037	10,639	15,768	19,126	25,342	26,863	28,474	174,133
Burglary	3,722	0	0	0	0	0	0	0	0	0	0	0	3,722
Depreciation <sup>9</sup>	24,368	122,000	289,693	342,096	515,966	672,358	665,818	712,124	851,041	944,399	855,040	882,721	6,857,667
Dues & subscriptions	114	121	128	136	272	288	305	600	636	674	715	757	4,745
Equipment rentals	3,148	1,000	1,060	1,124	1,191	1,262	1,338	1,419	1,504	1,594	1,689	1,791	18,120
Insurance	5,377	7,500	10,000	12,500	15,000	17,500	20,000	22,500	25,000	27,500	30,000	31,800	224,677
Interest <sup>10</sup>	8,800	84,000	174,400	192,600	197,600	165,900	95,900	46,900	0	0	0	0	566,100
Office expense	1,968	500	500	1,000	1,100	1,150	1,600	1,696	1,798	1,906	2,020	2,141	17,379
Outside services	1,558	1,651	1,751	1,855	1,967	2,085	2,210	2,343	2,483	2,632	2,790	2,958	26,283
Rent <sup>11</sup>	3,300	3,498	3,708	7,000	7,420	7,865	12,500	13,250	14,045	14,888	15,781	16,728	119,983
Repair & maintenance <sup>12</sup>	3,603	9,540	20,225	26,798	39,768	54,190	63,833	81,196	100,412	121,642	128,941	136,677	786,835
Security <sup>13</sup>	350	1,113	1,573	834	1,767	1,874	983	2,105	2,231	2,365	0	0	15,183
Shop supplies	1,456	1,000	1,060	1,124	1,191	1,262	1,338	1,419	1,504	1,594	1,689	1,791	16,428
Taxes & licenses	1,011	1,072	1,136	1,204	1,276	1,353	1,434	1,520	1,611	1,708	1,811	1,919	17,056
Taxes, payroll <sup>14</sup>	9,006	19,133	32,261	48,117	63,376	85,646	119,829	152,800	181,241	210,129	230,885	244,738	1,396,962
Taxes, sales <sup>15</sup>	12,245	32,448	82,548	131,251	185,501	262,174	330,012	405,046	507,413	620,605	701,897	743,799	4,014,738
Telephone	4,352	2,000	2,120	2,247	4,400	4,664	4,944	9,000	9,540	10,112	10,719	11,362	75,661
Utilities	625	663	702	744	789	836	887	940	996	1,056	1,119	1,186	10,544
Miscellaneous	2,174	500	530	562	596	631	669	709	752	797	845	895	9,660
Total expenses	\$184,396	\$501,047	\$1,001,635	\$1,377,443	\$1,862,343	\$2,394,063	\$2,816,738	\$3,322,023	\$3,975,564	\$4,651,260	\$4,968,068	\$5,242,530	\$32,296,630
Net income (loss) before income taxes	( 94,603)	( 118,883)	( 29,409)	168,397	332,444	693,749	1,070,571	1,438,523	2,000,630	2,638,085	3,296,365	3,517,768	14,933,637
Income taxes (assume 50%)	( 47,302)	( 59,442)	( 14,705)	84,199	166,222	346,875	535,286	719,262	1,000,315	1,329,043	1,648,183	1,758,884	7,466,820
Net income	(\$ 47,301)	(\$ 59,441)	(\$ 14,704)	\$ 84,198	\$ 166,222	\$ 346,874	\$ 535,285	\$ 719,261	\$ 1,000,315	\$ 1,329,042	\$ 1,648,182	\$ 1,758,884	\$ 7,466,817

\*Numbers refer to notes for the Lost-Profits Model (on page 37).

Table 3: Vending Operator's Pro Forma Cash Flow by Year

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Beginning cash balance	\$ 0	\$ 34,087	\$ 35,645	\$ 48,234	\$ 71,506	\$ 72,093	\$169,217	\$400,941	\$ 488,363	\$ 936,142	\$1,941,474	\$3,995,984
Net income	( 47,301)	( 59,442)	( 14,704)	84,198	166,222	346,875	535,285	719,261	1,000,315	1,329,042	1,648,182	1,758,884
Less cash expenditures	93,000	511,000	732,400	383,024	846,621	872,109	469,379	993,963	1,068,577	1,268,109	448,712	645,705
Items not affecting cash flow:												
depreciation	24,388	122,000	289,693	342,098	515,986	672,358	665,818	712,124	851,041	944,399	855,040	882,721
Cash flow from operations	(\$115,913)	(\$414,355)	(\$441,766)	\$ 91,506	\$ 92,907	\$219,217	\$900,941	\$338,363	\$1,271,142	\$1,941,474	\$3,995,984	\$5,991,884
Funds borrowed	150,000	450,000	490,000	0	165,000	0	0	0	0	0	0	0
Loan repayment	0	0	0	20,000	0	50,000	500,000	350,000	335,000	0	0	0
Net cash flow	\$ 34,087	\$ 35,645	\$ 48,234	\$ 71,506	\$ 72,093	\$169,217	\$400,941	\$488,363	\$ 936,142	\$1,941,474	\$3,995,984	\$5,991,884

Table 4: Vending Operator's Summary of Interest Based on New Debt Amounts

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Beginning loan balance	\$ 0	\$150,000	\$ 600,000	\$1,090,000	\$1,070,000	\$1,235,000	\$1,185,000	\$685,000	\$335,000	\$ 0	\$ 0	\$ 0
Payments on loan	\$ 0	\$ 0	\$ 0	\$ 20,000	\$ 0	\$ 50,000	\$ 500,000	\$350,000	\$335,000	\$ 0	\$ 0	\$ 0
Additional funds needed to finance operations	\$150,000	\$450,000	\$ 490,000	\$ 0	\$ 165,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Total debt	\$150,000	\$600,000	\$1,090,000	\$1,070,000	\$1,235,000	\$1,185,000	\$685,000	\$335,000	\$ 0	\$ 0	\$ 0	\$ 0
Interest rate	12.00%	14.00%	16.00%	18.00%	16.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
Total interest expense	\$18,000	\$ 84,000	\$174,400	\$192,600	\$197,600	\$165,900	\$ 95,900	\$46,900	\$ 0	\$ 0	\$ 0	\$ 0

Table 5: Summary of Required Personnel and Salaries

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Types of employees												
General manager	1	1	1	2	2	1	1	1	1	1	1	1
Manager	2	2	3	3	3	4	3	3	3	3	3	3
Drivers	1	1	1	2	2	2	3	6	7	7	7	7
Repairman	14	14	28	34	47	63	70	84	98	112	112	112
Services personnel												
Buyer							1	1	1	1	1	1
Bookkeeper							1	1	1	1	1	1
Secretary							1	1	1	1	1	1
Annual salary												
General manager	\$45,000	\$ 47,700	\$ 50,562	\$ 53,596	\$ 56,812	\$ 60,221	\$ 63,834	\$ 67,664	\$ 71,724	\$ 76,027	\$ 80,589	\$ 85,424
Manager	30,000	31,800	33,708	35,730	37,874	40,147	42,556	45,109	47,815	50,684	53,725	56,949
Driver	25,000	26,500	28,090	29,775	31,562	33,456	35,463	37,591	39,846	42,237	44,771	47,457
Repairman	28,000	29,680	31,461	33,348	35,349	37,470	39,719	42,102	44,628	47,305	50,144	53,152
Services personnel	5,200	5,512	5,843	6,193	6,565	6,959	7,376	7,819	8,288	8,785	9,312	9,871
Buyer	23,000	24,360	25,843	27,393	29,037	30,779	32,626	34,583	36,659	38,858	41,189	43,661
Bookkeeper	16,000	16,960	17,978	19,056	20,200	21,412	22,696	24,058	25,502	27,032	28,654	30,373
Secretary	16,000	16,960	17,978	19,056	20,200	21,412	22,696	24,058	25,502	27,032	28,654	30,373
Total annual salary	\$69,000	\$91,648	\$313,035	\$438,056	\$549,682	\$787,680	\$1,082,330	\$1,294,325	\$1,527,863	\$1,742,529	\$1,847,080	\$1,957,905
Less: 1/2 first year	( 38,584)	( 38,584)	( 54,944)	( 53,119)	( 42,672)	( 102,506)	( 123,695)	( 123,528)	( 77,938)	( 61,497)	0	0
	\$72,049	\$153,064	\$258,091	\$384,936	\$507,011	\$685,171	\$ 958,635	\$1,220,797	\$1,449,924	\$1,681,032	\$1,847,080	\$1,957,905



Table 6: Vending Operator's Summary of Asset Additions and Depreciation

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Asset additions												
Trucks	\$12,000	\$ 0	\$ 10,600	\$ 0	\$ 35,730	\$ 12,625	\$ 13,382	\$ 28,370	\$ 45,108	\$ 47,814	\$ 16,895	\$ 35,816
Units	80,000	510,000	720,800	382,020	809,891	859,484	454,997	964,593	1,022,469	1,219,294	430,817	608,888
Miscellaneous	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total of current year's additions	93,000	511,000	722,400	383,020	846,621	872,109	469,379	993,963	1,068,578	1,268,109	448,712	645,705
Plus prior year's balance	0	93,000	604,000	1,336,400	1,719,424	2,566,045	3,438,154	3,907,533	4,901,496	5,970,074	7,238,183	7,686,895
Total cumulative assets	93,000	604,000	1,336,400	1,719,420	2,566,045	3,438,154	3,907,533	4,901,496	5,970,074	7,238,183	7,686,895	8,332,600
Depreciation of—												
Three properties	4,000	4,000	7,533	3,533	15,443	16,118	20,579	18,126	28,954	40,432	36,606	33,509
Five properties	16,000	118,000	262,160	338,565	500,543	656,240	645,239	693,998	822,087	903,967	818,434	849,212
Current year's depreciation	20,000	122,000	269,693	342,098	515,986	672,358	665,818	712,124	851,041	944,399	855,040	882,721
Prior year's depreciation		20,000	142,000	411,693	753,791	1,269,778	1,942,136	2,607,955	3,320,078	4,171,119	5,115,518	5,970,558
Total accumulated depreciation	20,000	142,000	411,693	753,791	1,269,778	1,942,136	2,607,954	3,320,078	4,171,119	5,115,518	5,970,558	6,853,279
Net assets	\$73,000	\$462,000	\$ 924,707	\$ 965,629	\$1,296,267	\$1,496,018	\$1,299,579	\$1,581,418	\$1,798,955	\$2,122,665	\$1,716,337	\$1,479,322

### **Sample Request for Production of Documents**

*The request would be from the defendant, State, to the plaintiff, Vending Operator.*

1. Chart of accounts
2. General ledger
3. Cash receipts journal
4. Cash disbursements journal
5. General ledger
6. Sales journal
7. Accounts payable subsidiary ledger
8. Monthly financial statements transmitted to State
9. Audited financial statements
10. Business forecasts or projections
11. Cash flow statements
12. Bank statements
13. Sales tax statements filed with State
14. Federal and state income tax returns
15. Minutes of the board of directors meetings
16. Correspondence with suppliers
17. Contracts with suppliers
18. Loan agreements with banks
19. Budgets and management reports
20. Studies prepared by Vending Operator or any outside consultant that predict market size
21. Construction cost records or studies related to the building of sites
22. Maintenance logs and service records
23. Payroll journals or records
24. Subcontractor contracts and correspondence

## **Sample Deposition or Cross-Examination Questions**

*The attorney for the defendant, State, would address these questions to the expert for the plaintiff, Vending Operator.*

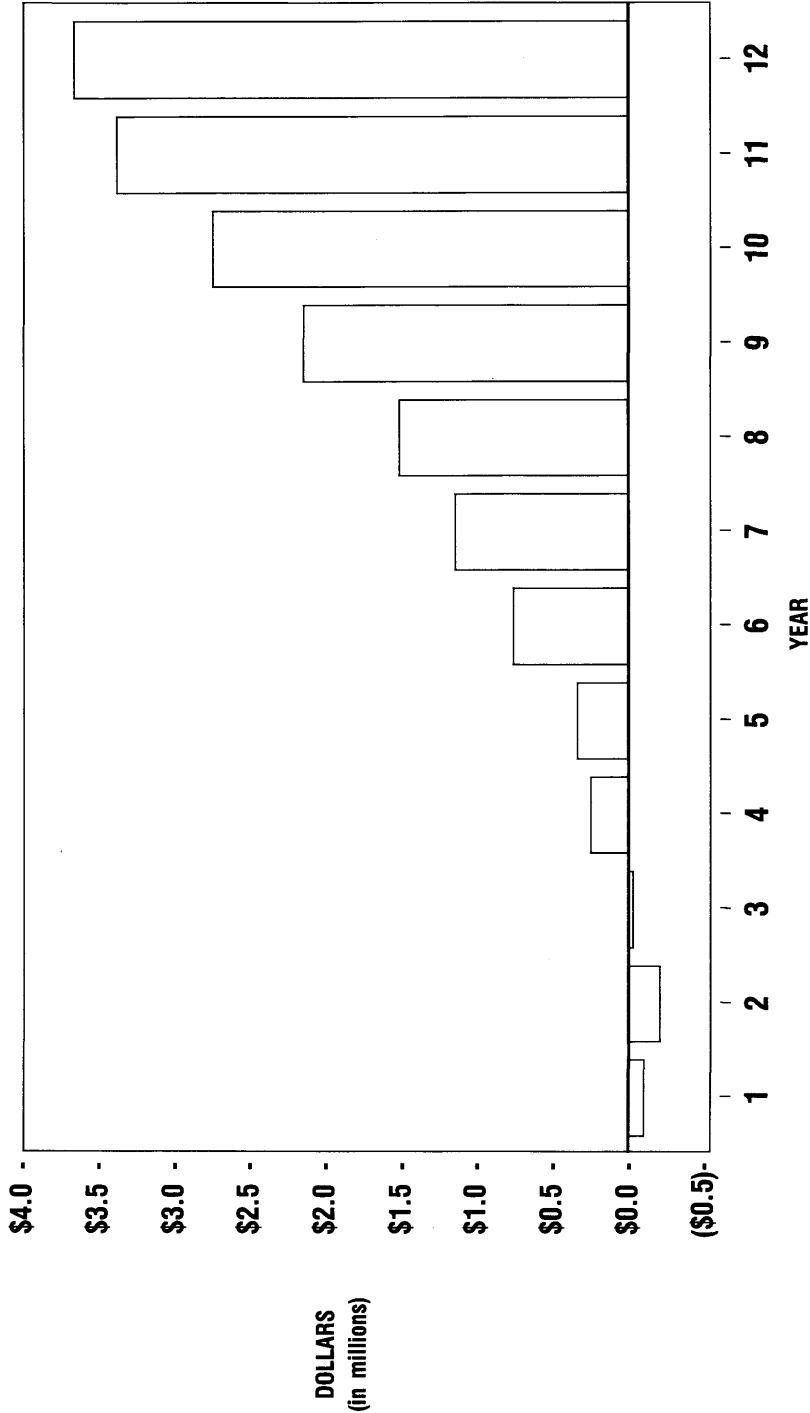
1. Note 1 in the damage study states that the revenue projection is based on annual sales of \$54,420 per unit. Where does this assumption come from? Is it based on the average revenue actually received from the five test sites that were operating?
2. Is revenue per unit a function of the amount of traffic that passes the unit during the year? In other words, would a unit with ten thousand cars a day passing it generate more revenue than a unit with only five thousand cars passing it? Everything else being equal, would the former unit generate twice the revenue as the latter unit?
3. Does the damage study assume the same average traffic would pass each of the projected 160 units as the average traffic that passed the 5 units that were actually operating?
4. What was the average yearly traffic that passed the roadside rest stops in State on (a) intrastate highways and (b) interstate highways?
5. In which year does the damage study assume that Vending Operator could have started putting units on interstate rest stops?
6. In which year did the federal government actually allow vending machines at rest stops on interstate highways?
7. Identify by location and year of installation each of the 160 units that Vending Operator would have operated in State.
8. Does the damage study assume that Vending Operator is the only vending machine operator at roadside rest stops in State during the entire period of the study?
9. If the answer to question 8 is yes, why is this a reasonable assumption? Did Vending Operator's contract with State grant an exclusive right to set up vending machines at State's roadside rest stops? Where in the contract did it state this?
10. If the answer to question 8 is no, who are the other competitors? How many vending sites do they have and in what locations?
11. If this market opportunity was as good as projected in the damage study, why did no one else except Vending Operator bid on the pilot project? Why, out of over one hundred requests for proposals mailed, was Vending Operator the only one to recognize this as a profitable opportunity?
12. A 47-percent cost-of-sales assumption is used after year 1 in the damage study. On what did you base this percentage? If the answer is a published survey, do you know which companies were included in the survey? Do you know what time period the survey covered? Identify the study by date and author, and specify where you obtained a copy.

13. During the one-year period when Vending Operator actually operated the five test sites, do you know what the actual cost of sales was as a percent of sales? Was it 67 percent?
14. Why do you believe that Vending Operator could have lowered cost of sales from 67 percent in year 1 to 47 percent in year 2?
15. From whom would Vending Operator have purchased products after year 1?
16. How did you estimate the number of employees that Vending Operator would have needed to do the business projected in the damage study?
17. Do you believe that Vending Operator would not have needed a bookkeeper until year 7, when it would have had one hundred units? Who would have maintained the books prior to year 7? If the answer is that the cost is included in "Accounting Expense" in the income statement, then why doesn't that expense decrease in year 7?
18. The damage study assumes that the accounting staff would never rise above one person for a business with over \$16 million in sales by year 12. Is this reasonable? Why?
19. The damage study assumes only seven drivers are needed to service 160 units. This is an average of 23 units per driver. How often must a driver visit each unit? What is the average distance between units for each driver?
20. No buyer of supplies is projected until year 7. Who would have done the buying before year 7? Why do you believe this person, a part-time buyer, could have obtained at least average costs for the products sold?
21. No secretarial staff is projected until year 7, and only one secretary is projected through year 12. Why is this a reasonable assumption?
22. How did you calculate the salaries for each class of employee considered necessary to run the projected business?
23. Did you assume that any of the employees would be unionized?
24. What benefits did you assume for each class of employee? In which expense line on the damage study's income statement are these benefits recorded?
25. How can Vending Operator pay services personnel only \$5,200 a year (\$433 a month) in year 1?
26. You used a national average to project cost of sales. How did you estimate 7-percent commissions to State after year 2? What is the average commission rate that vending machine operators pay public entities?
27. Why is the accounting expense in year 2 nearly half of the year 1 expense? Although there may have been start-up accounting expenses, sales nearly tripled between year 1 and year 2, so a higher accounting expense, rather than the stated lower one, seems logical.
28. How did you estimate the average annual truck expense of \$1,500 (increasing by 6 percent a year)? What is included in the truck expense? Why is it so much larger in year 1?
29. Why did you assume no burglaries after the first year? Does the insurance cover 100 percent of the losses from burglary and vandalism? If yes, how was the amount of the insurance expense estimated?
30. Is tax or book depreciation used in the damage study?

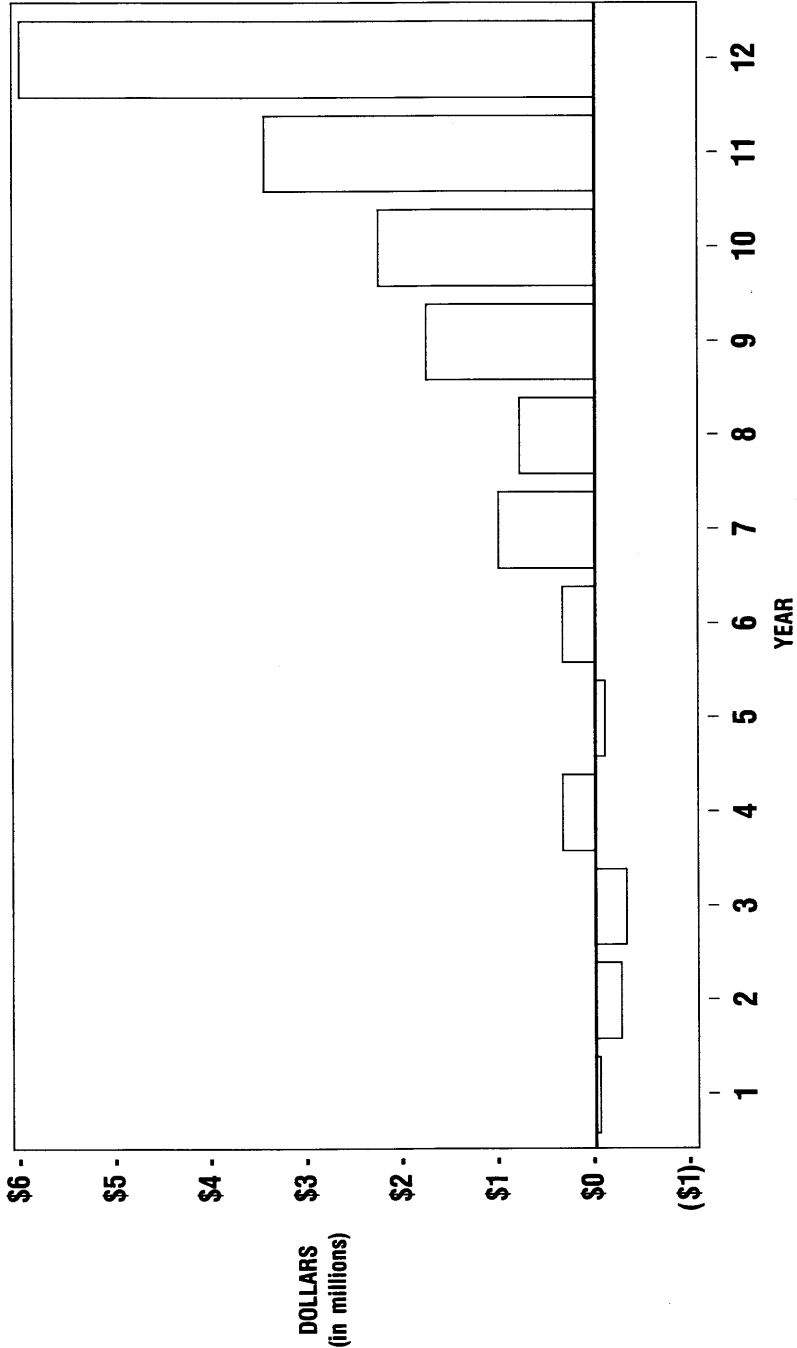
31. On what is the estimated cost of equipment rental based? For example, what type of equipment would have been rented and for what purpose? Why does the amount decline by two-thirds between year 1 and year 2, when more units would have been built and sales volume would have increased?
32. What types of coverage are included in the insurance expense line of the income statement? If property insurance is included, why doesn't it rise in proportion to the growing number of units and trucks? (It appears to increase only a nominal amount each year in relation to the business's growth.)
33. You estimated that \$1,090,000 would have been borrowed through year 3. During this period Vending Operator's losses are projected at \$121,447. How could Vending Operator have borrowed over \$1 million with this history of losses? Which financial institution would have lent Vending Operator the money?
34. What is the basis for the interest-rate assumptions? Would these loans have been at the prime rate or prime plus some points?
35. The amounts for office expense, telephone expense, and miscellaneous expense drop dramatically between years 1 and 2. Can you explain why, when the business is expanding so rapidly?
36. New offices are projected to be opened in years 4 and 7. Where would these offices be located? Why wouldn't secretaries or bookkeepers be necessary in these offices?
37. On what do you base the 6-percent yearly increase in rent?
38. What is the one-time security charge of \$70 per unit?
39. What is included in shop supplies? Why does the cost of shop supplies increase by only 6 percent per year? Shouldn't it be a function of the number of units in operation? If not, why not?
40. Why doesn't the expense for taxes and licenses increase whenever a new truck is bought?
41. What is the basis for the payroll taxes of 12.5 percent?
42. Why are sales taxes only 4.5 percent of sales? Isn't this lower than State's sales tax rate?
43. On what did you base the construction-cost estimate of \$34,000 a unit?
44. On what did you base the estimate of a twenty-year life for the buildings used to house the vending machines?
45. On what did you base the estimate of a ten-year life for the vending machines?
46. Does the damage study assume that the vending machines would be rented or purchased? From whom would the vending machines have been rented or purchased?
47. Where would Vending Operator have warehoused the products to supply 160 units all around State? Have these costs been included in the damage study? Where?
48. Costs in the damage study are modeled on actual experience in year 1, when 5 units operated in a small area. But the study also assumes 160 units operating all across State. How did you model the greater costs of running this larger business over a greatly increased area?

49. How does proximity to cities affect sales? Are roadside rest stops close to cities likely to have greater or lesser sales volume than those far from cities?
50. How would expected expansion of cities and metropolitan areas in State affect the buying patterns of motorists? Have you factored this into the damage study?
51. Why didn't you discount the alleged lost future cash flows (or profits) to present value? If you were to discount the lost future cash flows to the time of trial, what discount rate would you use?
52. Now that Vending Operator's principals are not spending time on the vending program for State, what other business ventures are they spending time on? What will they do between now and year 12? How much money do you estimate they will make in these business ventures? Since they would not have had time to pursue these other ventures if they were still working with State, shouldn't you subtract the profits from these other ventures from the damage study lost profits?
53. How many business projections have you done in the past?

Sample Projection of Vending Operator's Pretax Profit

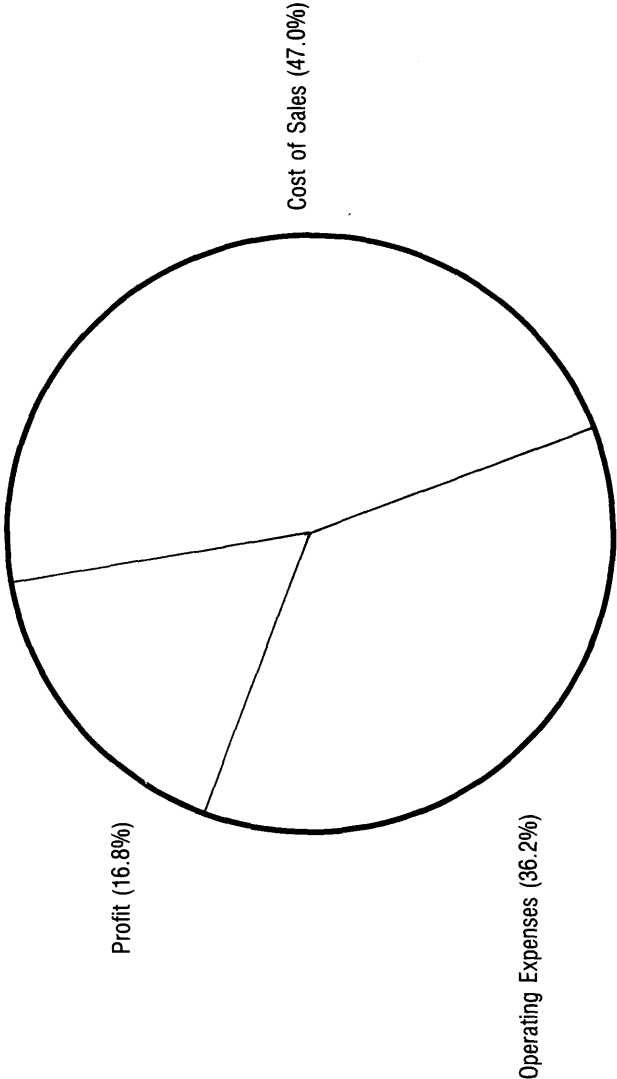


Sample Projection of Vending Operator's Cash Flow From Operations





Sample Percentage Breakdown of Vending Operator's Sales



# Glossary of Legal Terms

- admission** The voluntary acknowledgment by a party to the litigation that certain facts exist. Admissions are normally adverse to a party's interests and are made only after a formal request for admissions is served on the party.
- affidavit** A written declaration or statement of facts made by a witness under oath before an officer having authority to administer such an oath.
- answer** The pleading by which the defendant either denies or admits the allegations in a complaint.
- appeal** A request to a superior court to review an inferior court's decision. It is the remedy available to a losing party when trying to win reversal of a lower court's decision.
- collateral estoppel** The conclusiveness of a judgment in a prior suit used in a subsequent suit with a different cause of action to prove the same set of facts.
- complaint** The pleading that commences a lawsuit and sets forth the facts and allegations that the plaintiff relies on to support the claim against the defendant.
- declaration** An unsworn statement of facts made out of court by a party to the transaction, or by one who has an interest in the existence of the facts.
- defendant** (1) The person or organization defending a lawsuit. (2) The person or organization against which a complaint or indictment has been filed in a court of law.
- deposition** The oral testimony of a witness taken under oath out of court and reduced to writing by a court reporter. The witness is examined by attorneys for all the parties. The transcript of the deposition can be used in court for various purposes.
- directed verdict** A verdict ordered by the judge as a matter of law when he rules that the party with the burden of proof has failed to present a *prima facie* case and so is not entitled to any relief.
- discovery** The legal procedures by which one party obtains information from the other party to a litigation. Discovery normally precedes a trial and is the period during which one party learns as much as possible about the other party's case.
- evidence** Any offer of proof legally presented at trial to convince the trier of fact about the offering party's facts and allegations.
- expert witness** (1) A person who has special knowledge or training not possessed by ordinary persons. (2) One skilled in a particular profession or trade through experience, education, or training.
- forensic** Belonging to or having application to courts of law.
- hearsay** Evidence that is not based on the personal knowledge of the witness, but on the mere repetition of what the witness heard others say.
- impeachment** Questioning a witness's veracity by offering proof that he is not worth believing.
- interrogatories** Questions prepared by one party to a litigation and served on another party that must answer them under oath.

**liability** The condition of being actually or potentially subject to a legal obligation. A common form of liability is responsibility for a loss suffered by another.

**mitigation of damages (doctrine of)** The duty of an injured party to use reasonable effort to reduce or minimize the loss caused by another party to the litigation.

**plaintiff** (1) A person or organization that files a complaint and sues another person or organization. (2) One who complains.

**pleadings** The formal written statements of the parties to a litigation whereby they set forth their complaints and defenses. The most common pleadings are the complaint and the answer.

**prima facie** Proof sufficient to require the opposing party to answer the proof or lose the issue.

**proximate cause** That which produces an injury with no intervention by another event that the law recognizes as breaking the chain of causation.

**rebuttal** (1) The act of explaining or contradicting evidence already offered at trial. (2) The stage of the trial when rebuttal testimony is offered.

**rescission of contract** The unmaking of a contract that requires a complete repudiation of the contract and a return by the parties to their respective positions prior to entering into the contract.

**restitution** The act of restoring both parties to their original condition on the rescission of a contract.

**subpoena** A court order commanding a witness to appear.

**summary judgment** An official decision of a court at any stage of litigation, either before or during trial, based on the belief that no triable issues of fact exist.

**surrebuttal** (1) The act of explaining or contradicting rebuttal testimony. (2) The stage of the trial when surrebuttal testimony is offered.

**voir dire** The preliminary examination of a potential witness or juror in court to determine competency or lack of bias.

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